

## GENERAL ENGINE DATA

Type	4-Cycle, Water Cooled
Aspiration	Turbo-Charged, Inter Cooler (Fresh water to Cooler)
Cylinder Arrangement	Inline
No. of Cylinders	6
Bore mm(in.)	170 (6.69)
Stroke mm(in.)	180 (7.09)
Displacement liter(in <sup>3</sup> )	24.51 (1496)
Compression Ratio	14.5:1
Dry Weight - Engine only - kg(lb)	2300 (5072)
Wet Weight - Engine only - kg(lb)	2440 (5380)

## PERFORMANCE DATA

Steady State Speed Stability Band at any Constant Load	
Electric Governor - %	±0.25 or better
Maximum Overspeed Capacity - rpm	2100
Moment of inertia of Rotating Components - kgf·m <sup>2</sup> (lbf·ft <sup>2</sup> ) (Includes Std. Flywheel)	38.26 (908.1)
Cyclic Speed Variation with Flywheel at 1800rpm	1/150

## ENGINE MOUNTING

Maximum Bending Moment at Rear Face of Flywheel Housing - kgf·m(lbf·ft)	200 (1447)
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## AIR INLET SYSTEM

Maximum Intake Air Restriction (Includes piping)	
With Clean Filter Element - mm H <sub>2</sub> O (in. H <sub>2</sub> O)	400 (15.7)
With Dirty Filter Element - mm H <sub>2</sub> O (in. H <sub>2</sub> O)	635 (25.0)

## EXHAUST SYSTEM

Maximum Allowable Back Pressure - mm H <sub>2</sub> O (in. H <sub>2</sub> O)	600 (23.6)
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## LUBRICATION SYSTEM

Oil Pressure at Idle - kgf/cm <sup>2</sup> (psi)	2~3 (29~43)
at Rate Speed - kgf/cm <sup>2</sup> (psi)	5~6.5 (71~93)
Maximum Oil Temperature - °C(°F)	110 (230)
Oil Capacity of Standard Pan High - liter (U.S.gal)	80 (21.1)
Low - liter (U.S.gal)	50 (13.2)
Total System Capacity (Includes Oil Filter) - liter (U.S.gal)	100 (26.4)
Maximum Angle of Installation (Std. Pan) Front Down	11.5°
(Engine Only) Front Up	10°
Side to Side	22.5°

## COOLING SYSTEM

Coolant Capacity of Jacket (Engine only) - liter (U.S.gal)	43 (11.4)
Coolant Capacity of Air cooler (Engine only) - liter (U.S.gal)	7 (1.8)
Maximum External Friction Head at Engine Outlet - kgf/cm <sup>2</sup> (psi) (For Jacket and Air Cooler)	0.35 (5.0)
Maximum Static Head of Coolant above Crankshaft Center - m(ft)	10 (32.8)
Standard Thermostat (modulating) Range of Jacket - °C(°F)	71~85 (160~185)
Standard Thermostat (modulating) Range of Air Cooler - °C(°F)	35~50 (95~122)
Maximum Coolant Temperature at Engine Outlet of Jacket - °C(°F)	98 (208)
Minimum Coolant Expansion Space - % of System Capacity (For Jacket and Air Cooler)	10 (0.4)
Maximum Coolant Temperature at Intercooler Inlet, PTAW type - °C(°F)	45 (113)
Maximum Air Restriction on Discharge Side of Radiator and Fan - mm H <sub>2</sub> O (in. H <sub>2</sub> O)	10 (0.4)

Certified for US EPA-Tier 2/ Constant Speed

Standard Model [600kWe/60Hz]

**S6R-Y2PTAW-1**

**SPECIFICATION SHEET**

**MITSUBISHI**

**DIESEL ENGINES**

**FUEL SYSTEM**

Fuel Injector	Mitsubishi PS6 Type x 1
Maximum Suction Head of Feed Pump - mm Hg (in. Hg)	75 (3.0)
Maximum Static Head of Return & Leak Pipe - mm Hg (in.Hg)	150 (5.9)

**STARTING SYSTEM**

Battery Charging Alternator - V-Ah	24-30
Starting Motor Capacity - V-kW	24-7.5
Maximum Allowable Resistance of Cranking Circuit - m Ω	2.5
Recommended Minimum Battery Capacity	
At 5°C (41°F) and above - Ah	200
Below 5°C(41°F) through - 5°C(23°F)	500

**APPLICATION : GENERATOR**

The specifications are subject to change without notice.

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**ENGINE RATING**

All data represent net performance with standard accessories such as air cleaner, inlet/exhaust manifolds, fuel oil system, L.O. pump, etc. under the condition of 100kPa(29.6inHg) barometric pressure, 77°F(25°C) ambient temperature and 30% relative humidity.

ITEM	UNIT	STAND-BY POWER		PRIME POWER	
		60Hz	60Hz	60Hz	60Hz
Engine Speed	rpm	1800	1800		
No. of Cylinders		6			
Bore	mm (in.)	170 (6.69)			
Stroke	mm (in.)	180 (7.09)			
Displacement	liter (in. <sup>3</sup> )	24.51 (1496)			
Brake Horse power without Fan	HP (kW)	918 (685)	835 (623)		
Brake Mean Effective Pressure without Fan	kgf/cm <sup>2</sup> (psi)	19.0 (270)	17.3 (246)		
Mean Piston Speed	m/s (ft/min)	10.8 (2126)	10.8 (2126)		
Maximum Regenerative Power Absorption Capacity without Fan	HP (kW)	97 (72)	97 (72)		
Intake Air flow	m <sup>3</sup> /min (CFM)	68 (2401)	61 (2154)		
Exhaust Gas Flow	m <sup>3</sup> /min (CFM)	179 (6320)	161 (5685)		
Coolant Flow	liter/min (U.S. GPM)	800 (211)	800 (211)		
Coolant Flow to Intercooler (PTAW only)	liter/min (U.S. GPM)	400 (106)	400 (106)		
Cooling Air Flow (Std. Fan)	m <sup>3</sup> /min (CFM)	—	—		
Allowable Fan Loss Horse Power	HP (kW)	41.5 (31)	41.5 (31)		
Radiated Heat to Ambient	kcal/hr (BTU/min)	51019 (3374)	45835 (3031)		
Heat Rejection to Coolant	kcal/hr (BTU/min)	221083 (14622)	198618 (13136)		
Heat Rejection to Air Cooler (PTAW Version)	kcal/hr (BTU/min)	204076 (13497)	183340 (12126)		
Heat Rejection to Exhaust	kcal/hr (BTU/min)	635474 (42029)	564363 (37326)		
Noise Level (1 m height & distance) (excludes, Intake, Exhaust & Fan)	dB(A)	110	108		

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**APPLICATION : GENERATOR**

Pub. No. T13-0630-E



**MITSUBISHI  
DIESEL ENGINE**

Aug. 2, 2006

# 600kWe: S6R-PTAW

Engine Model	S6R-Y1PTA-4	S6R-Y2PTAW (Aug.3,2006)
Rated output	HP (kW/m) 898 (670)/1800rpm	918 (685)/1800rpm
Turbocharger	TF15M-60QVRC(49)	TF15M-67QVRC(49)
Piston	C/R 15.0	C/R 14.5
Injection Pump	PS6A	PS6A
Nozzle Assy	10-0.29-160	10-0.29-160
Governor	Proact2	<=
FIT	22	17
Fan Drive Ratio	0.675	<=
Allowable Fan Loss	HP (kW/m) 27 (20)	41.5 (31)
Cooling Air Flow	m <sup>3</sup> /min 720	Customer's fan
H/R to Jacket Water	kca/hr 375,544	222,500※1)
Jacket Water Flow	L/min 800	<=
H/R to Intercooler	kca/hr 375,544	205,500※1)
Charge Cooler Water Flow	L/min -	400※2)
Intake Air Flow	m <sup>3</sup> /min -	79
Exhaust Gas Flow	m <sup>3</sup> /min -	205
Maximum Intake Air Restriction (Includes piping) With Dirty Filter Element		----- 635 mm H <sub>2</sub> O
Maximum Allowable Back Pressure		----- 600 mm H <sub>2</sub> O
Maximum Exter Cooling Friction Head at Engine Outlet		----- 0.35 kgf/cm <sup>2</sup>

※1) MHI's QA test bench DATA (without allowance).

※2) Water Inlet Temp. of Charge Cooler is 45degC.

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